

Using Incident Reviews to Identify and Track Workplace Injuries, Exposures, and Hazards at a Large Construction Site

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Introduction

- ◆ A process was developed as part of an initiative to achieve zero accidents on a large construction site.
- ◆ One outcome of this process is a surveillance system for injuries and hazards.

Why bother ?

- ◆ Research by the Construction Industry Institute has identified Incident Investigation as an effective technique to improve safety.
- ◆ UK proposal to require investigation of all work-related accidents, ill-health, or near hits.
- ◆ Leading vs trailing indicators of safety performance.
- ◆ Owner commitment and expectations.

Typical Incident Investigation

- ◆ Fault finding – often blaming the victim without looking deeper
- ◆ Focus on single root cause, with little attention on contributing factors
- ◆ Commonly due to 'employee behavior'

Incident Review

- ◆ Finding facts, not faults
- ◆ Contributing factors as important as root cause
- ◆ 'Action Required' list generated to address hazards and related issues
- ◆ Results widely communicated

Implementation

- ◆ Participation required in contract specifications
- ◆ Written procedure – Best Known Method
- ◆ Review is conducted next day, ideally
- ◆ Facilitator trained to lead the process

Facilitator

- ◆ Key to a successful review
- ◆ Sets the tone of fact-finding, neutrality
- ◆ Explains process to attendees
- ◆ Records information on board in front of group
- ◆ Asks objective questions, listens, sorts fact from speculation

Facilitator

- ◆ Encourages balanced participation
- ◆ Elicits root cause and contributing factors
- ◆ Monitors progress and completion of 'Action Required' assignments

Outcomes: Injury Surveillance

- ◆ Documentation of injuries and near misses with potential for injury
- ◆ Focus on wide range of contributing factors
- ◆ Data can be used to identify patterns

Outcomes: Hazard Surveillance

- ◆ Documentation of hazards identified by root cause and contributing factors
- ◆ Patterns identified by data
- ◆ Systematic elimination of hazards
- ◆ Hazard elimination can occur 'upstream' in design and planning

Other Outcomes

- ◆ Relationship building
- ◆ Improved communication and trust
- ◆ Accountability for improvements
- ◆ Less fear of reporting

Example Incidents

- ◆ Neck injury from bumping overhead structure
- ◆ Cut hand with utility knife
- ◆ Unknown liquid spilled on arm
- ◆ Particle in eye
- ◆ Material fell off forklift as it was being unloaded

Example Contributing Factors

- ◆ Awkward work position
- ◆ Equipment blocking area
- ◆ Tool not designed for task
- ◆ Schedule pressure

Example 'Actions Required'

- ◆ Replace screwdrivers with small prying bars
- ◆ Palletize all loads prior to lifting
- ◆ Update procedure for line freezing
- ◆ Purchase and use the right gloves for the task

Patterns Identified

- ◆ Injuries due to bumping into overhead pipes
- ◆ Cuts from utility knives
- ◆ Falls through openings in floors
- ◆ Exposures to unknown liquids

Changes Made

- ◆ New building designed with basement rather than crawl space to allow more head room
- ◆ Utility knives and screwdrivers replaced with appropriate tools for task
- ◆ Changes in design of spill dams
- ◆ Better fitting gloves – no longer 'one size fits all'

Applicability to other settings

- ◆ Easily transferable to other industries
- ◆ Can be part of contract
- ◆ Appropriate for multi-employer worksites and transient workforce
- ◆ Requires support of management

Challenges

- ◆ Gaining trust of the process
- ◆ Getting past the perception that the review is a poor use of time
- ◆ Effective facilitation
- ◆ Management support – prevention can be difficult to sell
- ◆ Assuring dissemination to all involved parties

Benefits

- ◆ Patterns of injuries and hazards more easily detected
- ◆ Shift in culture – focus on issue, not individual
- ◆ Reduction in hazards
- ◆ Near-hits serve as leading indicators and a better way to prevent injuries